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Medical Lib.

The Proprietors regret the inevitable restriction in the size of THE LANCET during the present time of emergency.

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ÆQUANIMITAS MEDICA.

No quality in the physician or surgeon, said William Osler in a famous address, takes higher rank than imperturbability and the general strike gave the medical profession ample scope for the exercise of this essential virtue. Below is set out the spirit in which the official medical department of London carried out its varied duties, and all the evidence which has reached us goes to show that the same spirit ruled in every part of the country and in every kind of medical practice. What has been happening will only have its effect in the distant future, for the physical forces which deteriorate the health of the nation do not produce their result at once, but have their repercussion long afterwards. For this reason, if for no other, medical officers were wise not to abandon their routine duties for other spheres which appeared more attractive or fruitful at the moment. The temporary upset in the hospital services showed signs of amelioration even before the situation was relieved. Provision was made in many places for such emergencies as could be foreseen; apart from these, there has probably never been a time when the carrying on of medical practice in its every detail of daily routine was of more importance to the national weal. Practitioners do well to cultivate—to recall another phrase of Osler's—such a judicious measure of obtuseness as enabled them to meet the exigencies of practice with firmness and courage.

Sound organisation and generous assistance from the public enabled the metropolitan general hospitals to accommodate themselves rapidly to the conditions which followed the sudden dislocation of many public services. The difficulties which faced them at first were surmounted and generally speaking their work went on almost as usual. The mechanism of a large general hospital is widespread and complex; the smooth inter-working of many departments is needed to secure efficiency, and so many people—staff and patients—have to enter and leave each ward every day that any serious interruption of communication might easily have had serious results. In many hospitals preliminary arrangements were made in case of the emergency arising, for although the Government was able to guarantee the free movement of food-supplies, there were other essential services to be arranged: the conveyance of in-patients to and from their homes, the regular arrival of the lay and medical staffs, the replenishment of stores other than food, the maintenance of light and heat. In these and other matters involving internal organisation almost complete success was attained. During the first two or three days there was a little scarcity of fish and fresh vegetables, but the supply of all kinds of food became ample and regular, and there was at no time any real difficulty about milk. Obstacles to the movement of personnel, which at first looked serious, were quickly removed by owners of motor cars who placed an immense fleet of vehicles of all descriptions at the disposal of the hospitals. Regular services were organised for bringing in the staff and returning them to their homes, for the conveyance of doctors who had no cars of their own, and for the use of patients, some of whom had to be carried considerable distances. Here and there some members of the staff slept on the premises. The out-patient departments were necessarily chiefly affected, as out-patients are drawn from all parts of London and the suburbs, and transport difficulties at first reduced the attendance to a minimum. An increase in the number of trains and omnibuses, however, rapidly removed this disability, and on Monday last a larger number of out-patients attended at St. Bartholomew's Hospital than during the whole of the previous week. In the medical schools of the teaching hospitals systematic lectures were given, although practical courses were largely suspended owing to the fact that most of the students in a position to do so enrolled themselves as special constables or volunteers in essential services. For a time one hospital or another laboured under serious difficulties because light and fire were not available, but last Saturday supplies were partially restored, and on Monday they were extended to out-patient departments. The best commentary on the rumours of disturbances in the East End is afforded by the fact that there was no unusual pressure upon the Poplar Hospital for Accidents.

Turning to the public medical services in London, we understand that the work of the medical department of the London County Council was carried on without any dislocation whatever. The initial difficulty of transport was met partly by voluntary provision of private cars, partly by willing acquiescence of the staff in covering the ground on bicycles or on foot. Of the 90 doctors engaged in medical inspection, of the 300 or more school nurses, and of the 93 care committee organisers none failed to report for duty, although in individual cases the work was not done without some sacrifice of sleep, physical exhaustion, and even blistered feet. The voluntary attendance of children at cleansing stations did not appreciably drop off even after this measure ceased to be compulsory in certain areas. Notification of infectious disease among school children was made in envelopes prepaid at full postal rate to avoid delay in this essential kind of information. Swabs and culture tubes for the diagnosis of diphtheria were circulated by the private cars of the medical staff. The work of the chemical branch was unimpaired except in so far as milk samples for the present were not accepted by parcel post. Work in connexion with midwives, the Children's Act and tuberculosis went on as usual, the difficulty in taking patients to sanatoria being met by the offer of Red Cross ambulances for the purpose. The health of London during the emergency gave no cause for anxiety. There was little or no increase required in the supply of free meals for necessitous children, and the continuous efforts of the medical, dental and nursing staff maintained a full service of inspection and care. It would not be vainglorious to claim that a large measure of equanimity was achieved.

Modern Technique in Treatment.

A Series of Special Articles, contributed by invitation, on the Treatment of Medical and Surgical Conditions.

CLXXII.—TREATMENT OF DIABETES.

II. INSULIN TREATMENT.*

THE ideals set out in the article on dietetic treatment cannot be achieved in every case but should always be aimed at. Insulin does not cure diabetes, but it can restore a comatose patient to life and will make most patients feel quite well. It is not necessary for every patient. If a patient is over 50 years and can take a diet containing 50 g. of carbohydrate, and enough protein and fat to make up an adequate caloric value, insulin is not essential, though a small dose (5 units) will make the patient feel better. To children or young adults small doses of insulin should certainly be given, as it is essential to keep the patient in the best possible health with the least possible strain on the beta cells of the islands of Langerhans. If the carbohydrate cannot be raised to 40–50 g. without causing glycosuria or a raised fasting value of the blood-sugar, insulin is necessary. The popular belief, "once insulin, always insulin," is true in the sense that if a patient has been restored from coma and still needs 50 to 100 units a day he will probably die if the insulin is not given. But in mild cases it can always be stopped, provided that the carbohydrate is simultaneously reduced. When this alternative is offered the patient often prefers to continue the insulin. Except in emergencies, an attempt should first be made to control the condition by means of diet, since the discovery of the correct dose of insulin is thus made easier. Estimation of blood-sugar is not essential, but greatly shortens the time taken in balancing insulin and carbohydrate. The urine passed during the day should be collected three-hourly and as many specimens of night urine as possible without disturbing the patient. Benedict's solution should be used for sugar tests and the results charted. If the urine still contains sugar, or the blood-sugar is still too high, in spite of careful dietetic treatment, the following régime should be adopted.

Standard Régime.

A small dose of insulin, 5 units, should be given before breakfast and the urine of each three-hourly period tested for sugar. If the urine contains sugar before breakfast, the blood-sugar is probably above 0·20 per cent. and the urine in the period 0–3 hours after the insulin is certain to contain sugar. If the dose of insulin is sufficient to lower the blood-sugar below the threshold of the kidney for sugar (0·18 per cent., as a rule), no sugar will be present in the period 3–6 hours after insulin. If sugar reappears in the 6–9 period it means that the blood-sugar is again above 0·18 per cent. In this case the same dose should be persevered with for three days to see if the urine in the 6–9 and subsequent periods will become sugar-free. If this does not occur the dose of insulin must be increased to 10 units, and the same procedure adopted. If, however, the urine in the 3–6 period still contains sugar after a further three days' treatment, the insulin should be increased to 15 units and the effect watched. If this fails to render the urine sugar-free in the 3–6 period, an evening dose of 5 units should be given. This dose can be increased by 5 units every three days up to 15 units. If the urine still contains sugar in the 3–6 period, it is well to have an estimation of the blood-sugar made if possible. If the condition is still resistant, the dose can be increased by 5 units in the morning—i.e., 20 units—followed by 5 more units at night every three days until the urine does become sugar-free.

In practice it is rare for the condition to be so resistant unless the patient has another disease present which is making the diabetic condition much worse—e.g., gangrene of the leg. When an adequate dose of insulin is given and the urine is sugar-free throughout the day, it is advisable to have an estimation of the blood-sugar made before the insulin is given, so as to know whether the blood-sugar is below 0·13 per cent. or is only just below the threshold—0·18 per cent. If it is not possible to make estimations of the blood-sugar, some idea may be obtained by collecting the urine every hour after the usual time for the insulin injection, but omitting the insulin. If glycosuria occurs in any of the first two specimens the blood-sugar was probably above 0·13 per cent., provided always that the threshold of the kidney is set at the normal level. When the blood-sugar has been reduced to normal the diet can be cautiously increased, adding carbohydrate as fruit or milk in proportion of 1 unit of insulin to 2 g. of sugar. It is unwise to increase carbohydrate above 50 g. in a severe diabetic, and this amount is just sufficient to provide enough variety to make the diet palatable. The urine passed just before the insulin is given should be tested for sugar.

Hypoglycæmia.

As the patient improves, there may be symptoms of hypoglycæmia. The mildest are sweating, hunger pains, pallor, a feeling of limpness, dizziness, and tremor of the hands. Rather more severe ones are numbness of the hands or face and diplopia. The serious signs are (1) a state of coma resembling a deep sleep from which the patient cannot be roused; (2) a fit, rather like an epileptic fit, to which children are liable; (3) delirium.

For the mild attacks it is sufficient to take some of the food which would be eaten at the next meal, or some orange juice, or two lumps of cane sugar. If this does not relieve the symptoms more sugar should be eaten.

For the severe attacks, when a patient is unable to swallow, an injection of 15 minims of 1 in 1000 adrenalin or 1 c.cm. of pituitary extract will restore the patient to consciousness within five to ten minutes as a rule. When he recovers he should be given six lumps of cane sugar. If the adrenalin fails to restore consciousness in 30 minutes, it is advisable to give 200 c.cm. of a 5 per cent. solution of dextrose per rectum, or intravenously if the patient does not improve.

The patient should be able to recognise these symptoms, and the dose of insulin should be reduced by two or more units according to the severity of the reaction. A common cause of overdose is the taking of unwonted muscular exercise which burns up some sugar. This can be allowed for by taking less insulin or more carbohydrate. The patient's relations should know how to treat an overdose, and sterules of adrenalin should be at hand. The patient should always have sugar in his pocket or in a bag hung round the neck; he should carry a notice stating his condition and asking that adrenalin should be injected and sugar given if he becomes unconscious. This is a necessary precaution, since once the patient has become unconscious diagnosis is difficult.

Reasons for Increasing Dosage.

The dose of insulin must be increased greatly (1) if the patient develops another infection, (2) if diabetic coma ensues. Any infection is likely to cause some hyperglycæmia, or even glycosuria, and permanent decrease in sugar tolerance may ensue unless insulin is given in adequate amounts. The dose of insulin should be increased by either 2 or 4 units for mild diseases, such as colds in the head, small pimples or boils, even though no sugar has appeared in the urine. When a mild infection is over the dose may be reduced; after a severe infection it is advisable to wait for the first signs of an overdose. If the infection has been severe enough to cause glycosuria it may be necessary to give large doses of insulin. If possible, estimations of the blood-sugar should be made, but if this cannot be done the dose of insulin must be gauged by the presence or absence of glycosuria.

The urine should be collected, as far as is possible, in three-hourly periods and tested for sugar. Suppose that a patient,

* Part I., on the Dietetic Treatment of Diabetes, was published in THE LANCET of May 1st.

who has been taking 15 units in the morning and 10 in the evening, is taken ill during the night—e.g., with "influenza"—and the urine passed at 8 A.M. contains sugar, whereas it is usually sugar-free; in this case the usual dose of 15 units would be too small, and at least 20 units should be given. The urine in the period 0–3 hours is certain to contain sugar, but if the dose of insulin has been adequate there will be no glycosuria in the 3–6 period. In this event the urine must be tested every three hours, and as soon as glycosuria occurs 10 units should be given. If, however, the urine for the 3–6 period contained sugar, the dose of insulin was inadequate and another 20 units should be given. If the urine for the next 3–6 period also contains sugar, the insulin should be increased to 25 units and its effect watched in the same way.

If this procedure is followed it is safe to give large doses of insulin every six hours without any real risk of causing an overdose. It is sometimes necessary to give over 100 units, and even 200 units in the 24 hours. The night urine should be collected as far as is possible without awakening the patient specially, and if the condition is a grave one the insulin should be given six-hourly at night. When the urine for any 3–6 period is free from sugar, no insulin should be given until sugar reappears, and then the dose should be reduced by 5 or 10 units. During the convalescence there is some risk of an overdose, and it is a great advantage to know how the blood-sugar is behaving.

Coma.

As soon as the diagnosis is made (and after the blood has been collected for a blood-sugar determination), a large dose of insulin—50 units—should be injected. To avoid a possible overdose give 2 oz. of dextrose by mouth or by a stomach or nasal tube if the patient cannot swallow.

Collect urine by catheter three-hourly and test for sugar. If the urine in the 3–6 period contains sugar, a further 25 units should be given. If the patient shows no signs of recovery, another 50 g. of dextrose should be given together with 50 units of insulin. A further dose of insulin should be given six-hourly after testing the urine of the 3–6 period. No insulin should be given if the urine of the 3–6 period is sugar-free unless sugar is given at the same time; there is then little danger of overdose. As soon as sugar reappears in the urine insulin should be given again, the dose being reduced by 5 to 10 units.

Other measures should not be neglected; ol. ric., ℥ii., should be given with the first dose of sugar, and 10 oz. of water should be administered by a stomach-tube half hourly for three hours and then every hour. When the patient regains consciousness, the ordinary diabetic diet with 1 pint of milk added should be given, together with an adequate dose of insulin. A careful search should be made for the cause of the coma which is usually an infection of some sort. Any septic focus should be dealt with promptly.

Necessary Operations.

Except in emergency operations, a preliminary course of treatment is advisable in order to discover how much food and insulin are required to lower the blood-sugar to normal. If possible local or spinal anæsthesia should be used as these interfere least with the sugar metabolism; the combination with them of gas and oxygen causes little disturbance so long as asphyxia is absent. If ether or chloroform has to be given, remember that ether causes a rise in the blood-sugar and inactivates insulin; chloroform causes no such rise but may damage the liver. In any case give 2 oz. of dextrose two hours before the operation together with 30 units of insulin. After the operation give food suitable to the ordinary patient, injecting a sufficient quantity of insulin. The urine should be collected in three-hourly periods and the dose gauged accordingly. One pint of milk containing 24 g. of lactose requires 12 units. Any operation may lead to diminution in sugar tolerance, and so should be avoided unless a definite source of sepsis or a malignant growth is present.

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Medical Societies.

ROYAL SOCIETY OF MEDICINE.

SECTION OF MEDICINE.

A MEETING of this Section took place on April 27th under the presidency of Dr. HUGH THURSFIELD, when Dr. E. P. POULTON opened a discussion on the

Clinical Significance of the Respiratory Metabolic Rate.

Discussion, he said, would probably be limited chiefly to the basal metabolic rate, in other words, the absorption of oxygen and the output of CO_2, as measured in the morning before breakfast—i.e., about 12 hours after a light meal taken on the previous evening. It was desired, however, that in the discussion comments would extend over a wider field and that results would be produced after the taking of food and after exercise. Most of this work in recent years had been done in connexion with exophthalmic goitre, a subject which was very fully discussed by the Society not long ago.

Technique.—The measure of the direct heat produced was not used as a clinical method. The means of indirect calorimetry were divisible into the open circuit method and the closed circuit method. In the first of these, air from the atmosphere was breathed through a mask and valves, and the expired air was collected. The Douglas bag was usually employed in this country, and the method was shortened by substituting a spirometer for the bag, as the air was then measured during its collection. The calculation of the absorbed oxygen was complicated by the alteration in volume undergone by the inspired air during the act of breathing. The open circuit method had been used only for the determination of the carbon dioxide. It would be generally admitted, he thought, that to measure either oxygen alone or CO_2 alone was a second best method, as the double determination gave a valuable check on the results, and the respiratory quotient could also be calculated. The closed circuit method was the more favoured, the oxygen alone being determined. A spirometer was filled with pure oxygen and the CO_2 was absorbed in the circuit, the rate of fall in the spirometer indicating the volume of oxygen absorbed.

A New Apparatus.—Dr. Poulton and Dr. Campbell had together devised a new type of apparatus, which was on view and was demonstrated at the meeting. With this apparatus it was claimed: (1) that the results for oxygen and CO_2 were obtained during the actual investigation, so that one could be certain from one five minutes to another how constant the metabolism was; (2) the patient breathed ordinary air, thus dispensing with any preliminary saturation of the tissues with pure oxygen; (3) the experiment could be prolonged indefinitely if the source of the oxygen was pure; (4) if required, a volumetric tracing of the respiration could be obtained.

Normal Standards.—There were, he said, two standards in general use to obtain the normal figures for any individual. One was by calculating the normal metabolism from the body surface which was obtained from the person's weight and height from the Du Bois diagram. The other was by Dreyer's formula, in which only the body-weight appeared. It seemed to be the custom to take the body-weight at the time of the experiment, even though the patient might be either over-fat or wasted by disease. In the latter case the metabolism was lower than it would be if it had been calculated when the patient was of normal weight before the disease began. Dr. Poulton considered this was wrong, as the patient should be regarded as a physiological unit. Still, in the case of the wasted patient it might be defended, as the wasting had diminished his protoplasm and so diminished the metabolism. The weight of the individual when he was healthy, or the predicted weight, should always be used in calculating the metabolism. The chest

measurement was of little value when the patient was either much wasted or over-fat; therefore it was necessary to fall back on his body length in order to determine what his weight should be; and it would be of value to have also such factors as the length of arms and legs.

Clinical Significance.—Practically all our fundamental knowledge on the variations in basal metabolism, said Dr. Poulton, was due to the work of Magnus Levy in connexion with thyroid disease. Its clinical significance in that disease could be regarded from two points of view—the diagnostic and the indications as to the effect of treatment. It was well known that in hyperthyroidism the basal metabolism was raised; on the other hand, it was lowered in cretinism, myxœdema, and the post-operative disease. It must not be forgotten, however, that such conditions as fever and leukæmia caused a raised metabolism, while starvation, under-feeding, and Addison's disease produced a lowered metabolism. Certain patients, though giving well-marked signs of Graves's disease, showed a normal metabolism, Means's name for these being "border-line" cases. Dr. Poulton considered that the basal metabolism was of great value as a guide to treatment—i.e., both in cases of exophthalmic goitre and as a guide to the right dosage of thyroid in cretinism and myxœdema.

Obesity.—He thought it likely that in the future respiratory tests would be more frequently used than at present in the treatment of conditions of obesity. Means found that the basal metabolism per unit of body surface was about normal in obese people, but this raised the question of what was the correct standard of comparison in such cases. If the metabolism of the healthy subject before he became fat was taken as the standard, then the basal metabolism in obesity was usually high, a peculiar fact seeing that adipose tissue by itself probably had a very low respiratory exchange, and the fatty tissue surrounding the patient also tended to prevent the loss of heat, despite some increase in the body surface. An increased metabolism of this kind might be due to increased food ingestion, on the analogy that fasting caused a lowered metabolism, hence over-eating and under-exercising might be regarded as the main cause, rather than some endocrine disturbance. Some observations by Plant seemed to show that it was not so much the basal metabolism which was at fault as the specific dynamic action after the intake of food, seeing that after a protein meal had been eaten the rise in the respiratory exchange was less than normal. Dr. Campbell and the speaker had conducted some observations on the effect on the respiratory exchange of a sufferer from severe bronchitis and asthma. They found that the respiratory quotient as the result of exercise was lower than among normals, the total oxygen intake remaining the same. Treatment with oxygen caused a rise in the quotient to about the normal. Hetzel and Long found low quotients for exercise in diabetic patients.

Discussion.

Dr. C. M. WILSON spoke of the precautions which were necessary in order to secure actual measurements of the metabolic rate, and said the discussion would be of value in so far as it showed these measurements to supply something which clinical methods failed to show. There were two groups in which these measurements showed hyperthyroidism, and one in which they showed hypothyroidism. In the first of these one must place the nervous woman who had palpitation and perhaps loss of weight. A proportion of them were due to hyperthyroidism and would respond to suitable treatment; in other words, the diagnosis could be made in this way at a time when it would be impossible by clinical methods. Treatment commenced at this stage might be very effective, but started later on might prove difficult. Also there were cases in which it was very important to decide whether the condition was a non-toxic goitre in a nervous woman, or a toxic goitre producing nervous symptoms. The second group of hyperthyroidism in which the measurements were of value were cases of women whose outstanding symptom was menorrhagia, yet without abnormal pelvic signs. A proportion of these cases responded to X ray treatment of the thyroid gland. If the basal metabolic rate was normal, not only would the X ray treatment not be effective in stopping the menorrhagia, but it was not justifiable to apply the rays to an over-active thyroid. With regard to hypothyroidism, these metabolic measurements were not required for a frank case of myxœdema, but there was a class of case which stopped short of myxœdema and yet had a definitely lowered basal metabolic rate and which cleared up on the administration of thyroid. These measurements of metabolism did not indicate when surgery should be used and when X rays should be applied, but they enabled whatever treatment was chosen to be conducted with safety. If rays were being applied the measurements indicated when they should be stopped, and prevented the operator suspending them too soon. To operate surgically when the basal metabolic rate was rising was to ask for trouble.

Dr. H. GARDINER-HILL communicated a few general results arrived at by examining 4000 cases in the last five years. Determinations of the basal metabolic rate were of considerable value when the thyroid condition dominated the clinical picture. In pituitary obesity there seemed to be no definite alteration in the basal metabolic rate. In six cases of acromegaly the rate was within normal limits in two, slightly raised in two, unaltered in two. It tended to be below normal in fat children. Some cases of adrenal disturbance had also been investigated, but the metabolism was not altered. In cases of amenorrhœa in which there were no endocrine stigmata the rate was within +15 and −15 per cent. Two male castrates gave normal results, but of 12 female castrates 5 gave −60 to −35 per cent. and had definite symptoms of myxœdema. All the five had had double ovariotomy performed because of flooding. In the diagnosis of early or latent cases of myxœdema considerable help had been afforded by the estimations of the metabolic rate, particularly in differentiating them from other forms of œdema. He and his colleagues had seen 20 cases of sterility and repeated miscarriages in which the gynæcologist found no local cause, and in 10 of these there was a low metabolic rate. Pregnancy had been known to have taken place since in seven of them and the labour pursued the normal course to full term following the administration of desiccated thyroid.

Dr. R. D. LAWRENCE said he was not so optimistic as Dr. Wilson as to the value of these estimations in giving more information than did clinical investigation. During the last year he had made a practice of guessing what the figures would be, and in the vast majority of cases his guess was within 5 per cent. of the truth, except when the figures were very high. He personally found that the pulse, loss of weight, tremor, nervousness, and excitability gave sufficient indications. In minor classes of hyperthyrodism, when one could not be sure whether a neurotic element underlay the condition, he did not find the metabolic rate was of any value. In nearly all cases of Graves's disease the respiratory quotient was lowered; it might be 0·71, 0·73, and often it was below 0·75. It rose coincidently with the improvement in the case. When the respiratory quotient was very low he viewed the case gravely and considered it was not operable for the time being. The total metabolism, as measured in calories, went up markedly in Graves's disease, but not in diabetes proper. The fasting blood-sugar was most important; in diabetes this was raised, but in Graves's disease its level wasn ot altered; it was always normal. This seemed to depend on the glycogen stores of the body.

Dr. REGINALD HILTON pointed out how difficult it was to avoid errors in these investigations. It was necessary to know what was the respiratory quotient, as it bore an inverse relationship to the metabolic

rate. The loss of weight occuring in cases in which artificial pneumothorax was induced presented a Clinical problem. He was inclined to agree with Dr. Lawrence that computation of the metabolic rate was rarely necessary, and it was better to do without estimations than that they should be poorly done.

Dr. POULTON, in a brief reply, said the discussion showed how varied were the uses to which this estimation was being put in London, and some valuable data were being accumulated He agreed that in the bad cases there was a lowered respiratory quotient.

CAMBRIDGE MEDICAL WORTHIES.

Sir StClair Thomson, the President, described the social evening of the Royal Society of Medicine on May 3rd as a respite from the serious affairs of the hour. There was a large gathering of Fellows and their guests, and Sir Humphry Rolleston's address on Some Worthies of the Cambridge Medical School was enjoyed all the more because of its irrelevance to the political situation. The selection of individuals for special mention, he said, had been no easy task; the Cambridge medical graduates' club had 600 or 700 members, all of whom were doubtless worthy, and amongst the 80 presidents of the Royal College of Physicians of London since 1518 there had been 37 who held Cambridge degrees. Of these John Caius was certainly one of the greatest benefactors to his University (which was founded, so he had solemnly contended, 390 years before the birth of Christ). The originator of scientific anatomy and physician to three sovereigns, Caius was responsible for the second foundation of Gonville College in the interests of medicine; but it was unfortunate that he consented to become its master, for he was out of sympathy with the militant protestantism of his time. His rooms were raided, the "Popish trumpery" therein was thrown out of the windows, and Caius himself was expelled from the University. Gonville and Caius College, said Sir Humphry Rolleston, had provided seven of the 18 Regius professors in the University. Amongst these was Francis Glisson, who anticipated modern muscular physiology by a century and whose observations on rickets, which finally appeared in the famous "Tractatus de Rachitide," almost certainly inspired the work of Whistler, published at Leyden. Following him the Cambridge school produced a long series of interesting and distinguished men—William Heberden the elder, the friend and medical attendant of Samuel Johnson, by whom he was described as "the last of the learned physicians"; Robert Glynn, who was born in Cornwall and educated at Eton and who would never charge fees to Etonians or Cornishmen; Sir Busick Harwood, the witty and licentious professor of anatomy who made successful experiments in blood transfusion, offered his guests at dinner the turbot dissected for his students, and sent Sir Isaac Pennington, the Regius professor, a challenge to a duel. It was of Pennington was written:—

> "When Pennington for female ills indites,
> Studying alone, not what, but how he writes,
> The ladies, as his graceful form they scan,
> Cry, with ill-omened rapture, killing man."

The challenge, however, was ignored, and Sir Isaac lived to the age of 72 and died a bachelor, which enabled him, Sir Humphry Rolleston said, to make generous benefactions to his College. Pennington's successor was John Haviland. He found the medical school in a precarious state and under threat of abolition. As a remedy he introduced regular courses in pathology and the practice of medicine and made examinations a really serious test of what the candidate knew. He wrote little or nothing, "but if," said Sir Humphry Rolleston, "the medical school is his memorial he could hardly wish for a better." After referring to Sir Thomas Watson, whose lectures enjoyed wonderfully long life as a text-book, Henry Thompson, described as a most cautious physician and said to have once prescribed half a leech, and Henry Hales Bond, who succeeded Haviland as Regius professor and held the office for 21 years, Sir Humphry Rolleston spoke of the renascence of the medical school which occurred during the middle years of last century and was associated especially with the names of Sir George Edward Paget, Sir George Murray Humphry, and Sir Michael Foster. Paget, he said, was the most distinguished Regius professor at Cambridge since Glisson. He was a quiet and very able man and was responsible for the institution of the natural sciences tripos and bedside examinations for the M.B.; the D.P.H. was also started in his 20 years' term of office. Humphry was appointed surgeon to Addenbrooke's Hospital at 22, when he had never even amputated a finger; he was a great anatomist and an arresting and impressive teacher; he found the medical school insignificant and was largely instrumental in making it what it is. Foster laid the foundations of Cambridge physiology. After a brief account of the extraordinary career of Humphry's successor, Alexander Macalister, who qualified in medicine at 17 and was professor of anatomy from 1883 till his death in 1919, Sir Humphry Rolleston concluded his address by speaking of some of the less familiar aspects of the life of the late Sir Clifford Allbutt. Amongst his hearers there were many who had not known that Sir Clifford Allbutt had intended to devote himself to art and that he was the original for the Dr. Lydgate of George Eliot's "Middlemarch," but all of them joined with his successor in remembering respectfully the contributions of this great man to his university and to science.

At the end of the address there was an opportunity for conversation and to look at the interesting exhibits arranged in the library, many of them lent from the Wellcome Museum by courtesy of the curator. The society's practice of holding social evenings again justified itself to the full.

Parliamentary Intelligence.

The *Midwives and Maternity Homes Bill*, which has already passed through the House of Commons, was read a first time in the House of Lords on April 28th.

Mercantile Marine.—In reply to a question by Mr. Beckett, Sir P. Cunliffe-Lister stated that the classification of the causes of death of persons employed on British merchant vessels had been referred by the Board of Trade to the Permanent Consultative Committee on Official Statistics. The Board anticipate that the report of that Committee will be ready shortly.

Education of Defective Children.—In reply to a question addressed by Mr. Robert Morrison to the President of the Board of Education asking whether, in view of the fact that since the issue of Circular 1349, 169 local authorities had submitted proposals for making further provision for defective children, he would state how many of these proposals had been deleted in the revised programmes. Lord E. Percy replied that such proposals had been postponed in a few cases but he had not asked any authorities to delete them from their programmes.

Lunacy Law.—Mr. Pethick-Lawrence asked the Minister of Health whether his attention had been called to the remarks of a High Court Judge on April 27th in giving judgment on a recent case, in which he pointed out the hardship created by the existing state of the law, and expressed regret at the decision he was thereby compelled to reach; and whether he contemplated the introduction of legislation to secure that in future a sane man detained in an asylum should not be effectively prevented from bringing an action until it was too late to succeed. Mr. Chamberlain replied that he did not at present contemplate fresh legislation but the points were receiving consideration.

A FAKIR DEMONSTRATION TO DOCTORS.

A demonstration, said to be in the interests of science and for the benefit of the medical profession, was given by Fakir Dr. Tahra Bey a few days ago at the New Scala Theatre. The place was well filled with invited guests; a panel of 40 medical men had seats reserved on the platform, and a few volunteers from the audience joined this jury. An interpreter stated that Tahra Bey had graduated in medicine at Constantinople and that his sole object was to demonstrate to scientists the influence of mind over body. The fakir, who was clad in oriental costume, then gave an exhibition of his power to enter a state in which considerable physical insult can be suffered without pain. After some manipulation of his neck he fell rigid; he was placed on his back, supported only by two blunt scythe blades several feet apart; a block of stone weighing at least 60 lbs., was lifted on to his abdomen and chest, and a heavy sledge hammer was brought down forcibly on the stone by an assistant. The state of so-called cataleptic rigidity thus demonstrated was followed by a period of analgesia during which the fakir, chatting pleasantly in French the while, pierced his cheeks with hat pins, worried his neck with a large knife which passed through a fold of skin, and allowed a surgeon to transfix any part of his flesh with a sharp instrument, the forearm being the site chosen. These operations were practically bloodless. He also lay down on a bed of vertical nails while an assistant stood on his body. There followed a demonstration of thought reading, which was difficult to follow accurately, but which apparently satisfied those members of the audience who personally tested the fakir's powers. Finally, he endured burial for ten minutes in a coffin which was covered with sand, his mouth and nose being lightly plugged with cotton-wool but his hands left free. When he emerged it was stated by an assistant that his pulse rate was 80. At his first appearance, the pulse rate was ascertained to be 118 and the fakir said that it was normally 120.

The explanation given of the means whereby Tahra Bey gained control over his circulatory, nervous and respiratory systems was unintelligible, and the replies to certain pertinent questions were barely coherent. We have received from many sources alternative explanations and suggestions for tests under experimental conditions.

INFECTIOUS DISEASE IN ENGLAND AND WALES DURING THE WEEKS ENDED APRIL 24th AND MAY 1st.

Notifications.—The following cases were notified during the week ended April 24th: Small-pox, 130 (last week 213); scarlet fever, 1502; diphtheria, 866; enteric fever, 42; pneumonia, 1391; puerperal fever, 60; cerebro-spinal fever, 10; acute poliomyelitis, 5; encephalitis lethargica, 52; dysentery, 6; ophthalmia neonatorum, 107. There were no cases of cholera, plague or typhus fever notified during the week.

Deaths.—In the aggregate of great towns, including London, there was 1 (1) death from enteric fever, none from small-pox, 81 (35) from measles, 6 (1) from scarlet fever 57 (7) from whooping-cough, 38 (13) from diphtheria, 51 (17) from diarrhœa and enteritis under 2 years of age, and 209 (35) from influenza. The figures in parentheses are these for London itself. The notified deaths from influenza for the 105 great towns show a diminution of well nigh 100 on the figures of the previous week. The measles deaths are now below the 100 limit.

No printed return has yet been issued for the week ended May 1st, 1926, but we are able to give the total notifications of infectious disease for London and for England and Wales as a whole. In London there was notified no case of small-pox; scarlet fever, 241; diphtheria, 242; enteric fever, 9; pneumonia, 117; puerperal fever, 5; cerebro-spinal fever, 3; encephalitis lethargica, 4; continued fever, 2; and ophthalmia neonatorum, 5. In England and Wales as a whole cases were notified: small-pox, 146; scarlet fever, 1518; diphtheria, 979; enteric fever, 44; pneumonia, 1198; puerperal fever, 42; cerebro-spinal fever, 9; acute polio-myelitis, 3; acute polio-encephalitis, 2; encephalitis lethargica, 53; continued fever, 2; dysentery, 7; and ophthalmia neonatorum, 93. In the same week 166 deaths occurred in the 105 great towns from influenza, of which 28 were in London.

Obituary.

STEPHEN PAGET, M.A. OXF., F.R.C.S. ENG.

Mr. Stephen Paget died at his residence, "Furzedown", Limpsfield, on May 8th, aged 70. Born in 1855, the fourth son of Sir James Paget, Stephen was educated at Shrewsbury, Christchurch Oxford, and St. Bartholomew's Hospital, whence he qualified M.R.C.S. in 1883, taking the F.R.C.S. two years later. Following his father, he became Surgeon to the West London and Metropolitan Hospitals before developing the specialty which led to his appointment as Surgeon to the Throat and Ear Department of the Middlesex Hospital. His name will be remembered chiefly as the founder in 1908 of the Research Defence Society, a reincarnation of the earlier Association for the Advancement of Medicine by Research which his father had helped to inaugurate 25 years earlier. For many years under his inspired leadership as Secretary and later as Vice-Chairman this Society has striven to make generally known the value and necessity of animal experiment. The active prosecution of medical research being debarred to him by ill-health, the protection of other workers from undeserved attack became his chief life work. His publications, which include a memoir of his father and a biography of Sir Victor Horsley, reflect this bias but differ from most propagandist literature in the grace and charm of their style. His essays are delightful and Confessio Medici, first published in 1908, has become a classic cherished by medical men and reread perhaps more often than any other book on their shelves. Stephen Paget lived to see the need for experimental work accepted by nearly all his colleagues and by a large section of the thinking public.

V.D. CLINICS AND THE L.C.C.

To the Editor of THE LANCET.

SIR,—With regard to my letter on this subject in your issue of April 3rd (p. 735), the chairman of the Public Health Committee of the London County Council has asked me to write and explain that it is not the intention of the County Council to concentrate entirely on six whole-time clinics, and that those clinics which are to be closed will receive one year's intimation of the fact.

I am, Sir, yours faithfully,

Chiswick, W., April 29th, 1926. STELLA CHURCHILL.

Vacant Appointments.

Elizabeth Garrett Anderson Hospital, Euston-road.—Wanted, fully qualified Medical Women for the following posts: HOUSE PHYSICIAN, OBSTETRIC ASSISTANT, and HOUSE SURGEON. Salary at the rate of £50 per annum, with board, residence, and laundry. Appointments from 1st July for six months. Applications, with three copies of testimonials, to be sent to the Secretary before 26th May. IMOGEN H. MURPHY, Secretary.

Applications are invited for the Chair OF ANATOMY at the Royal Veterinary College, Camden Town, London, N.W. 1, which will be vacant at 1st October next. Salary £600 per annum, plus Superannuation benefits. Applications, accompanied by not more than four testimonials, should be addressed to the Secretary, and received not later than 1st July.

Hertford County Hospital.

—Applications are invited for a HOUSE PHYSICIAN (Male). The appointment is for six months, eligible for re-election, duties commencing June 1st, 1926. Salary £150 per annum with furnished apartments, board and laundry. Applications, stating age, qualifications, and accompanied by copies of three recent testimonials, to be sent not later than Tuesday, May 18th, 1926, to the undersigned from whom further particulars can be obtained if desired.

PERCY G. BROOKS, Secretary.

County Mental Hospital, Whittingham,

Preston, Lancs.

TEMPORARY MEDICAL OFFICER required for six months or longer. To commence duty about beginning of June. Salary £7 7s. per week, together with board, furnished apartments, attendance, and laundry. Those who are keen on Pathology and who have held House Physician or House Surgeon's appointment preferred. Well equipped and well staffed Laboratory for research work. Candidates must be unmarried and registered under the Medical Act.

Apply stating age and full particulars to the Medical Superintendent.

Westminster Hospital Medical School,

S.W. 1.—Applications are invited for the Honorary Office of LECTURER ON TROPICAL DISEASES. Candidates should have special experience in Tropical Diseases, and preference will be given to one holding a Diploma in Tropical Medicine.

Applications should be submitted to the Dean, Westminster Hospital School of Medicine, 12, Caxton-street, S.W. 1, not later than Tuesday, 18th May.

South Devon and East Cornwall

HOSPITAL, Plymouth.—Applicants are invited for the post of HONORARY ASSISTANT PHYSICIAN.

Candidates must hold the Fellowship or Membership of one of the Royal Colleges of Physicians in Great Britain, or be Doctors of Medicine of a University of Great Britain.

Applicants must send twelve copies of their application and testimonials to the undersigned by Wednesday, May 26th.

H. KINGSLEY PEARCE, Gen. Supt. and Secretary.

Plymouth, May 3rd, 1926.

Acton Hospital.

Appointment of Male RESIDENT MEDICAL OFFICER. Salary £150 per annum, with board, residence and laundry. Candidates must be fully qualified and registered. Duties to commence towards the end of June. Applications stating age, nationality, and qualifications, together with copies of recent testimonials, should be sent to the Secretary, Acton Hospital, Gunnersbury-lane, Acton, W. 3, not later than May 21st, 1926.

Miller General Hospital for South

EAST LONDON, Greenwich-road, S.E. 10.

HOUSE SURGEON (Male) required, unmarried (there are three other residents). Salary £125 per annum with board, lodging and laundry. Applications stating age, nationality, qualifications and experience, accompanied by not more than three recent testimonials, to be sent as soon as possible to the Secretary.

Miller General Hospital for South

EAST LONDON, Greenwich-road, S.E. 10.

RESIDENT CASUALTY OFFICER (Male) required, unmarried (there are three other residents). Salary £150 per annum with board, lodging, and laundry. Applications stating age, nationality, qualifications, and experience, accompanied by copies of not more than three recent testimonials, to be sent as soon as possible to the Secretary.

Parish of Lambeth: Board of GUARDIANS.

Wanted for the Lambeth Hospital, Brook-street, S.E. 11, a NON-RESIDENT PATHOLOGIST. Salary £500 p.a., together with meals when on duty. Candidates must be fully qualified and registered by the General Medical Council. Preference will be given to gentlemen who have held resident hospital appointments. It is essential that candidates should have had previous experience of work in a pathological laboratory.

The candidate appointed will be required to take charge of the pathological department of the hospital, including bacteriology, morbid histology, hæmatology, and pathological chemistry. He will also be expected to supervise the clinical assistants in the performance of post-mortem examinations.

Written application to be sent to the Clerk to the Guardians, Guardians' Offices, Brook-street, Kennington, S.E. 11, and to arrive not later than by first post on Monday, 17th May.

Applicants are advised to visit the Hospital (by appointment) to learn the actual conditions.

It is understood that the Guardians will have first claim on the Officer's services, but they will be prepared to consider application from him to undertake other work, provided it would not interfere with the duties of the appointment.

By order,

JAMES L. GOLDSPINK, Clerk to the Guardians.

30th April, 1926.

Central London Throat, Nose and

EAR HOSPITAL, Gray's Inn-road, W.C. 1.

ASSISTANT OUT-PATIENT REGISTRAR.

There is a vacancy for an Assistant Out-patient Registrar. The office is honorary, and tenable for one year, subject to re-election.

Attendance required on two afternoons weekly (at present Monday and Saturday).

The duties are to assist the Surgeons in attendance upon patients, and to assist in keeping the records for the days of attendance.

Applications should be sent to the Secretary at once.

Bolton Infirmary and Dispensary.

SECRETARY'S OFFICE.

(233 beds, including Auxiliary Hospitals).

Applications for the appointment of TWO HOUSE SURGEONS, Salary £150 per annum; and an ASSISTANT HOUSE SURGEON, Salary £100 per annum, with apartments, Board and attendance, are invited from ladies and gentlemen having a registered Medical and Surgical qualification.

Applications, stating age, with copy of testimonials, should be forwarded to the undersigned (from whom further particulars may be obtained), not later than Monday, May 24th 1926.

ALBERT E. BRISCOE, Secretary.

Bolton Infirmary and Dispensary,

SECRETARY'S OFFICE.

(233 beds, including Auxiliary Hospitals).

Applications for the appointment of a RESIDENT SURGICAL OFFICER, Salary £250 per annum, with apartments, Board and attendance, are invited from gentlemen having a registered Medical and Surgical qualification.

Applications, stating age, with copy of testimonials, should be forwarded to the undersigned (from whom further particulars may be obtained), not later than Monday, May 24th, 1926.

ALBERT E. BRISCOE, Secretary.

The Liverpool Eye and Ear Infirmary.

Myrtle-street, Liverpool.

Applications are invited for the post of HOUSE SURGEON (Male) to the above Institution. Salary £100 per annum, with board and lodging. Applications, stating age and qualifications, together with copies of not more than three recent testimonials, should be sent before May 25th, 1926, to CHAS. W. WRIGHT, Esq., 9, Harrington-street, Liverpool.

Stockport Infirmary. — Applications

are invited for the post of RESIDENT SURGICAL OFFICER. Salary £250 per annum, with board, residence, and laundry.

Applicants must have had at least one year's Hospital experience since qualifying.

Written applications, stating age, qualifications, and positions held, with copies of three recent testimonials, to be delivered on or before Monday, the 17th instant, addressed to the undersigned

EDWIN J. PEARCE, Secretary-Superintendent.

Cumberland County Council.

ASSISTANT COUNTY MEDICAL OFFICER OF HEALTH.

Applications are invited by the County Council for the above appointment. The salary will be £600, rising by £25 annually to £700 with travelling expenses.

The person appointed will be required to devote his whole time to the service of the Council and to pass a medical examination, and the appointment will be subject to the provisions of the Local Government and Other Officers' Superannuation Act, 1922. The appointment will be subject to two months' notice on either side.

Candidates must be fully qualified medical men holding a diploma in public health or similar qualifications.

Forms of application may be obtained from the County Medical Officer of Health, Citadel Chambers, Carlisle, on receipt of a stamped addressed foolscap envelope.

Applications endorsed "Assistant Medical Officer" and accompanied by copies of three recent testimonials, will be received by the County Medical Officer up to Thursday, the 20th May, 1926.

Canvassing is prohibited and will be considered a disqualification. C. COURTENAY HODGSON, Clerk of the County Council.

3rd May, 1926

Royal Medico-Psychological

Association.

The examination for the Certificate in PSYCHOLOGICAL MEDICINE will be held at Bethlem Royal Hospital, London, at 10 A.M. on MONDAY, June 7th, and Examination for the GASKELL PRIZE on TUESDAY, JUNE 8th, at 10 A.M. The practical part of the examination will be at 2.30 P.M. on Wednesday, June 9th.

Entrance fees £3 3s., to be paid to the Registrar prior to May 19th.

Essays for Bronze Medal to be sent to the Registrar prior to May 19th.

DANIEL F. RAMBAUT, Registrar.

St. Andrew's Hospital, Northampton, May, 1926.

Medical News.

THE STRIKE IN LONDON.

UNIVERSITY OF LONDON.—The Final Examinations, normally held in June, for Internal and External Students, have been postponed to a date not earlier than Sept. 1st. The first day of the recent final M.B., B.S. examination coincided with the first day of the stoppage of transport. In spite of this only four or five candidates—some two per cent. of the entry—failed to present themselves punctually for papers and practical tests. Common difficulties of transport appeared to lead to more fraternisation between examiners and candidates than is usual on these formal occasions, and lifts in private vehicles labelled "M.B., B.S. Examination Hall" were exchanged.

BRITISH MEDICAL ASSOCIATION.—The Association inform us that they asked for suggestions from the Ministry of Health and the Home Office as to any way in which the Association could be helpful during the emergency. They were informed that there was no central way in which the organisation could be used, but that doctors could serve best by placing themselves at the disposal of the police authorities in their own neighbourhoods.

LONDON SCHOOL OF MEDICINE FOR WOMEN.—At this School work was carried on as usual. Several of the students and members of the staff volunteered for public service and such occupations as might usefully free men for work as special constables, etc., but it was not found necessary to call on them.

The emergency duties assumed by medical students in London were manifold and varied. Students were feeding horses, staffing restaurant-cars and driving food lorries. One squad of students were taught the technique of train signalling in 48 hours, and were sent to Exeter to carry on this work. Others did duty as porters, while a large number were serving as full time special constables. One of the latter is in St. Thomas's Hospital with a punctured wound of the back.

The Metropolitan Borough of St. Pancras collected the names of doctors available in case of serious civil commotion.

37 young consultants from the Harley-street area enrolled in the Metropolitan Special Constabulary Reserve, Marylebone, D. Division.

The almoners at one of the big London hospitals had so little to do in the absence of large attendances of out-patients, that they used the opportunity to prepare the year's accounts and statistics.

THE STRIKE IN PROVINCIAL CENTRES.

WE have received from correspondents the following information on the effects of the industrial disturbance. *Newcastle-on-Tyne.*—At the Royal Victoria Infirmary cases of accident or injury were few, the electrical supply was maintained by volunteers, and the chief anxiety was financial; the workers' weekly contributions are an important source of income. Lectures at the medical school were suspended as all the students were on public service. Vegetables and some medical necessaries became somewhat scarce. *Cardiff.*—Work at the Infirmary and the medical school proceeded on normal lines. *Liverpool.*—The hospitals were little affected. There was a shortage of coal, but fresh meat was obtainable in spite of slaughtermen leaving work. *Leeds.*—No emergency medical services were needed. The General Infirmary's activities were unhampered; medical students, with few exceptions, continued their studies; there was no restriction in food, and the sanitary conditions of the city remained satisfactory. *Sheffield.*—The hospitals did not suffer in service or supplies, but it was estimated that the industrial dispute would inflict on them a loss of £1500 a week under the 1d. in the £ scheme. Food supplies were maintained. The university continued its work, but many students undertook civic duties. *Bristol.*—The emergency hardly affected the hospitals. Although a large proportion of the medical students volunteered for service only a few of the final year students were called away. There has been practically no evidence of distress amongst the families of those involved in the conflict. *Nottingham.*—There was no interference with hospital or private practice. Straitened conditions of livelihood have as yet produced no perceptible effects. *Aberdeen.*—General conditions remained fairly normal. There were no special difficulties in carrying on medical work. Many students went on public service. *Glasgow.*—The work of general, Poor-law, and other hospitals proceeded smoothly. The cars of doctors were occasionally held up but were always allowed to proceed. No difficulty arose in connection with sanitation and the food supply was adequate. *Manchester.*—There was no dislocation of medical services or the provision of necessaries.

Medical Diary.

ROYAL SOCIETY OF MEDICINE, 1, Wimpole-street, W.

WEDNESDAY, May 19th.—5 P.M., History of Medicine. Annual General Meeting. Election of Officers and Council for 1926–27. Mr. Walter G. Spencer: Celsus de Medicina.

THURSDAY,—5 P.M., Dermatology. (Cases at 4 P.M.) Annual General Meeting. Election of Officers and Council for 1926–27. Cases, Dr. Semon: Case for Diagnosis. Dr. Kingston: Premycotic stage of mycosis fungoides. Dr. Barber: Reticulated pigmented poikilodermia (Civatte).

THURSDAY, May 20th.—8.15 P.M., Electro Therapeutics and Rontgen Society. Dr. A.Dauvillier (Paris): The Measurement of X-ray Dosage. (Mackenzie Davidson Memorial Lecture).

FRIDAY—5.30 P.M., Electro-Therapeutics. Annual General Meeting. Election of Officers and Council. Dr. H. Eaton Stewart (New Haven, U.S.A.) Diathermy in Pneumonia.

ST. MARY'S HOSPITAL INSTITUTE OF PATHOLOGY AND RESEARCH.

THURSDAY, May 20th.—Lecture postponed.

MANCHESTER ROYAL INFIRMARY POST GRADUATE COURSE.

TUESDAY, May 18th.—4.15 P.M., Mr. F. H. Westmacott: Deafness, Curable and Incurable.

FRIDAY, 4.15 P.M., Dr. J. Cowan: Demonstration in Electro-therapeutics.

Deaths.

CRISP.—On May 4th, at Market Harborough, John Crisp, M.R.C.S. Eng., L.R.C.P. Lond., aged 62.

HEATON.—On May 3rd, at Cape Town, Lieut.-Colonel Arthur Frederick Heaton, R.A.M.C. (retd.)

PAGET.—On Saturday May 8th, at Furzedown, Limpsfield, Stephen Paget, F.R.C.S., aged 70.

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